NCATE PROGRAM STANDARDS

Program for Initial Preparation of Teachers of Technology Education

Prepared by

International Technology Education Association/ Council on Technology Teacher Education (ITEA/CTTE)

These program standards were approved by NCATE in April 1987, revised in October 1992, and October 1997. Institutions are required to respond to these program standards for basic technology education teacher education programs.

Institutions seeking NCATE accreditation are required to respond to the curriculum sections of ITEA/CTTE's program standards as adapted for this document. The full set of program standards for the preparation of technology teacher preparation is available for $5.00 from the International Technology Education Association/Council on Technology Teacher Education, 1914 Association Drive, Reston, VA 22091.

INTRODUCTION

Technology education is an applied discipline designed to promote technological literacy at all levels. It is the intent of such study to provide candidates with an understanding of their technological culture so they can become intelligent consumers of their technology. Therefore, the program is designed to produce individuals who can solve problems involving the technical means humans use for their survival. Technology education capitalizes on the need humans have for expressing themselves with tools and materials. Technological literacy is considered a basic and fundamental study for all persons regardless of educational or career goals. As a result of these goals, the discipline is laboratory oriented. This area of study replaces programs formerly known as Industrial Arts.

Technology education is defined as a comprehensive, action-based educational program concerned with technical means, their evolution, utilization, and significance; with industry, its organization, personnel systems, techniques, resources, and products; and their social/cultural impact (*Technology Education: A Perspective on Implementation*, 1985, p. 25).

In technology education, the subsystems of human technical endeavor serve as the foundation for content derivation, as well as the development of instructional strategies. These subsystems are communication, construction, manufacturing, and transportation. Each subsystem provides structure to the school program, as does the interrelationship among them. It is imperative, therefore, that programs be evaluated on their ability to provide instruction in these areas.

If your program is a vocational program based on a philosophy different than technology education addressed in these program standards, you are not required to respond to these program standards. Your program should be identified as vocational, not technology education.

Who should respond to these program standards?

All teacher education programs with the mission of preparing technology education teachers should respond to these program standards. If your program is a vocational program based on a philosophy different than the technology education addressed by these program standards, you are not required to respond to these program standards. You must respond to these program standards if the institution offers an initial program in technology education. Please contact either the ITEA or NCATE offices for further information if necessary. The full set of program standards for the preparation of technology teacher preparation is available for $5.00 from the International Technology Education Association/Council on Technology Teacher Education, 1914 Association Drive, Reston, VA 22091.

INSTRUCTIONS FOR COMPLETING THE PROGRAM REVIEW DOCUMENT

The program review document generated by the institution should provide information to demonstrate the ability to deliver a curricular structure based on the definitions of technology education previously identified. Support materials must include the items listed on the cover sheet that follows this page. State certification requirements for technology education should be provided.

The program review document compiler should be given a copy of the Introduction to the *NCATE Program Standards*, as well as the matrix.

Information provided should substantiate and describe the degree to which your program meets each guideline. The length of each response is dependent upon the breadth and depth the institution feels necessary to communicate with NCATE. If the space provided is inadequate, supplementary pages may be added. You may choose to copy the matrix on the computer so that sufficient space to respond is available. It is imperative that all materials be referenced

to the matrix number that it documents. However, it should be kept in mind that there are limitations to the total number of pages that can be submitted in a program review document. The overview section may not exceed 12 pages, the matrix should be the length of the matrix which follows in this book, and the Appendices may be no longer than 100 pages.

When a syllabus or course description does not clearly show how a guideline is addressed, provide a description and/or examples in the space provided on the matrix.

Timelines

Institutions preparing program review documents for *continuing accreditation* reviews must submit 4 copies (initial and advanced physical education, health education, reading education, and educational computing require 5 copies, science education requires 3 copies) of the program review documents to NCATE 1 year before the visit, on the following schedule:

Semester of Visit	Program Review Documents Due at NCATE	Response from Specialty Professional Association Available by
Fall 2002	September 15, 2001	January 15, 2002
Spring 2003	February 1, 2002	July 15, 2002
Fall 2003	September 15, 2002	January 15, 2003
Spring 2004	February 1, 2003	July 15, 2003

Institutions that have not had an NCATE review under the current unit standards must submit 4 copies (initial and advanced physical education, health education, reading education, and educational computing require 5 copies, science education requires 3 copies) of the program review document to NCATE with their preconditions package 18 months before the visit, on the following schedule:

Semester of Visit	Program Review Documents Due at NCATE	Response from Specialty Professional Association Available by
Fall 2003	February 1, 2002	July 15, 2002
Spring 2004	September 15, 2002	February 1, 2003
Fall 2004	February 1, 2003	July 15, 2003
Spring 2005	September 15, 2003	February 1, 2004

Institutions should feel free to contact any of the specialty organizations for help in preparing program review documents and rejoinders or with specific questions about individual sets of program standards. *__However, DO NOT mail any program review documents or rejoinders directly to the specialty groups. These must be sent to the NCATE office.__* Mailing materials directly to the specialty groups means NCATE has no record of a submission. It could, therefore, complicate the program review process and result in no record of compliance in NCATE's biennial guide to

accredited colleges and universities and/or cause delays in receiving critiques of program review documents and rejoinders. **Please ensure that program review document compilers are also aware that program review documents and rejoinders must be mailed to the NCATE office.**

If you have any questions about the program review process, or if you need delays in submitting your program review documents or rejoinders, please contact the Coordinator of Program Reviews/Assistant to the Senior Vice President, at the NCATE office. **Program review documents and rejoinders should be sent to this person's attention.**

After the response from ITEA/CTTE has been received at NCATE, a copy will be forwarded to the NCATE coordinator at the institution. You then will have approximately two months to prepare a rejoinder for a second review by ITEA/CTTE. It will take four to six months to receive a response to the rejoinder from ITEA/CTTE. The preparation of the rejoinder is optional; it is not required by NCATE.

A list of institutional programs that are approved is published by NCATE as part of its *A Guide to College Programs in Teacher Preparation.*

Length of the Program Review Document

A program review document must be limited to the following three sections, numbered consecutively and no more than a total of 140 pages:

(1)   All items listed in the overview section of the cover sheet that precedes each set of program standards. *This overview section must be limited to no more than 12 pages.*

(2)   Matrix for the appropriate program standards from the *NCATE Program Standards.*

(3)   Appendix with supporting documentation. This documentation is limited to sample syllabi, course descriptions, and/or uniquely specific information listed on the matrix. Course descriptions can be copied from the college catalog. *Do not submit a syllabus for each section of a course. Submit only a "generic" syllabus for the course.* NCATE does not have, nor require, a generic syllabus format. However, many professional education units have found it helpful to develop one for the program review and accreditation process. **Each** item in the appendix must be correlated and/or cross-referenced to the matrix. *The appendix must be limited to no more than 100 pages, if possible.*

COVER SHEET
TECHNOLOGY TEACHER EDUCATION/INITIAL PROGRAM
International Technology Education Association/
Council on Technology Teacher Education

Please submit two copies of this cover sheet.

SUBMITTED BY: _____
       (Name of College/University)

_____
    (Address)

CHIEF COMPILER:

DATE: _____   PHONE: _____

DATE OF ON-SITE VISIT: _____

Name of program offered for review <u>in this document</u>: _____

Classification: Level(s) offered for review <u>in this document</u>:

_____ Administration   _____ Baccalaureate

_____ Pre-School/Pre-K   _____ Post-Baccalaureate, Initial Program

_____ K-12 Education   _____ Masters, Initial Program

_____ Kindergarten   _____ Advanced Masters

_____ Early Childhood   _____ Specialist

_____ Elementary Education   _____ Doctorate

_____ Middle School Education   _____ Other (specify): _____

_____ Secondary Education   _____

_____ Combined (specify): _____

_____

_____ Support Services

_____ Other (specify): _____

_____

Checklist of materials included with this program review document:

    Section I   Overview and scope, including the following:

        ___   (1) Mission, goals and objectives.

        ___   (2) Candidates' courses of studies with all required courses clearly marked, including exact courses and sequence taken by semester.

        ___   (3) Descriptions of field experiences, student teaching and internships (must be in a Technology Education program). Include the amount of time and the type of supervision.

        ___   (4) Explanation of how the program may deviate from the program standards.

___   (5) Descriptions of where the program is located within the professional education unit and its interrelationships with other programs in the unit and the university/college.

___   (6) List of faculty with primary assignments in the technology education programs. Provide rank, responsibilities and tenure status. (Do not send vitae.)

___   (7) Number of graduates from the initial program over the past three years.

___   (8) Description of program funding.

___   (9) Description of program facilities.

___   (10) State certification/licensure requirements for technology education.

Section II   Matrix/Matrices

Section III   Appropriate sections of university catalog (i.e., program description, course descriptions, etc.), program literature and syllabi as appropriate. If one course is used to meet a number of program standards, please include a syllabus for that course. If the course description from the catalog does not clearly show how the guideline is met, please include a syllabus.

I verify that the information provided in this program review document is accurate and true:

_____   _____Signature
                                                   Name (please print)

_____   _____Position
                                                   Telephone

                                                   _____Address

Program Standards and Matrix

International Technology Education Association/
Council on Technology Teacher Education

Program Standards	Evidence: Performance Data, Experiences, and Courses.
1.0 Develop a philosophy informed by current research findings in technology education, curriculum and instructional design, assessment, and professional development.	
1.1 Design programs based on a sound mission statement with stated goals and objectives which reflect the definition and intent of technology education.	
1.2 Use an organized set of concepts, processes and systems that are technological when designing course outlines, instructional strategies, and evaluations of student work.	
2.0 Possess the necessary depth and breadth in mathematics, science, and related disciplines to be able to successfully teach technology education.	
3.0 Master teaching and technical skills appropriate to successfully teach the study of technology.	
3.1 Possess knowledge about the development of technology, its effects on people, the environment and culture; and industry, its organization, personnel systems, techniques resources and products; and their impact on society and culture.	
3.2 Use instructional content from the content organizers of:	
3.2.1 Communication: efficient use of resources to transfer information to extend human potential.	
3.2.2 Construction: efficient use of resources to build structures or construct on site structures.	
3.2.3 Manufacturing: efficient use of resources to extract and convert raw/recycled materials into industrial and consumer goods.	

Program Standards	Evidence: Performance Data, Experiences, and Courses.
3.2.4 Transportation: efficiently using resources to obtain time and to attain and maintain direct physical contact and exchange among individuals and societal units through the movement of material/goods and people.	
3.3 Identify and incorporate safe and efficient use of contemporary technological tools, instruments, and machines into a program of study.	
3.4 Incorporate insight, knowledge, and applications of technological concepts, processes and systems into a teaching program.	
3.5 Use skills, creative abilities, positive self-concepts, and individual potentials in teaching technology.	
3.6 Apply problem-solving and creative abilities involving human and material resources, processes, and technological systems.	
3.7 Use activity-oriented laboratory instruction which reinforces abstract concepts through concrete experiences.	
3.8 Apply technology to the design and production of activities for student use.	
3.9 Develop technology education programs that advance student attitudes, knowledge , and skills regarding how technological systems function.	
3.10 Develop the ability of the students to apply technological knowledge and skills, and to assess new or different past-present-future technology systems.	
4.0 Perform the following tasks in developing, managing, and evaluating a technology program in schools.	
4.1 Display a philosophy and understanding of technology education.	
4.2 Develop a strategic program plan that includes a mission statement, rationale for change, goals and objectives, action steps, as well as a program evaluation strategy.	

Program Standards	Evidence: Performance Data, Experiences, and Courses.
4.3 Select content based on the goals and objectives appropriate to the content organizers (construction, manufacturing, communication, bio-related, transportation, or other organizers) of technology.	
4.4 Structure an educational environment in the classroom and laboratory to advance the instructional process.	
4.5 Select appropriate instructional technologies to effectively teach all student populations.	
4.6 Provide for laboratory management (i.e., safety, inventory, filing, requisitioning equipment and materials, maintenance, budgeting).	
4.7 Develop lesson plans, organize material, and select appropriate instructional strategies to effectively teach in the psychomotor, affective, and cognitive domains of learning.	
4.8 Establish clear expectations for student conduct and develop and implement a behavior management policy program.	
4.9 Be able to establish a technology student association within the technology education program, in a public school or in a university, to include organization, establishing a chapter, assisting in its management and evaluation.	
4.10 Promote and articulate technology education to internal and external public audiences.	
4.11 Be able to develop and coordinate an external advisory committee for a Technology Education program.	
4.12 Design a professional development plan for continued personal and professional growth.	
4.13 Use standards to evaluate and revise a technology education program. Identify standards for the program, establish a process for using the standards, and utilize findings for subsequent program revisions.	
5.0 Develop attitudes, knowledge, and skills needed for success as a teacher in technology education.	
5.1 Possess knowledge to organize classroom and laboratory experiences for the study of technology.	

Program Standards	Evidence: Performance Data, Experiences, and Courses.
5.2 Manage technological activities in both an individual and group setting.	
5.3 Apply multicultural and global perspectives as they relate to the study of technology.	
5.4 Apply values and ethics as they relate to content issues in the study of technology.	